

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Michael Choi

Serial No.:	10/683,600	Group Art Unit:	3744
Filed:	October 9, 2003	Examiner:	Chen Wen Jiang
Confirmation No.:	1017	Attorney Ref.:	202-0601 (FGT 3B7)
For:	NOISE ATTENUATING DEVICE FOR A HEATING- VENTILATION-COOLING SYSTEM OF A MOTOR VEHICLE		

Mail Stop **APPEAL BRIEF - PATENTS**

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

RESPONSE TO NOTICE OF NON-COMPLIANT APPEAL BRIEF

In response to the Notice of Non-Compliant Appeal Brief mailed May 6, 2009, Applicant submits herewith an amended Summary of Claimed Subject Matter, presented in accordance with MPEP 1205.03(B). Please charge any fees incurred in the filing of this response, along with any other costs, to Deposit Account No. 06-1510.

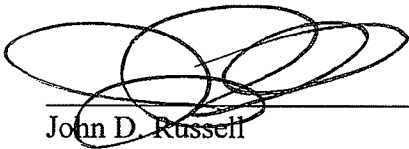
CERTIFICATE OF MAILING

I hereby certify that this correspondence is being transmitted via EFS or facsimile to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop APPEAL BRIEF - PATENTS, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on:

May 29, 2009
Date

Isabel M. Clagett
Isabel M. Clagett

Respectfully submitted,
ALLEMAN HALL MCCOY
RUSSELL & TUTTLE LLP


John D. Russell
Registration No. 47,048
Customer No. 36865
Attorney for Applicant/Assignee
806 S.W. Broadway, Suite 600
Portland, Oregon 97205
Telephone: (503) 459-4141
Facsimile: (503) 459-4142

AMENDED SUMMARY OF CLAIMED SUBJECT MATTER

The present application relates to reducing noise caused by turbulent air flow in a climate control system of a passenger vehicle traveling on the road. (Specification, page 1, lines 6-9.)

Various methods have been applied to reduce noise in air ducts of a passenger vehicle. One approach attempts to improve the grill on an instrument panel of the vehicle, as described in U.S. Pat. No. 4,957,036. (Specification, page 1, lines 12-15.)

The inventor herein has recognized a disadvantage with prior art noise reduction systems for climate control systems of passenger vehicles. Specifically, such a system can have duct systems with significant amounts of bending, or other discontinuities, so that the system can be packaged into the vehicle. This is especially true with more modern vehicle designs where space outside the passenger compartment is at a premium. Air flowing around these bends, or through other discontinuities, can produce noise due to turbulent air flow caused by a blower fan. In one example, this noise can be due to impingement from turbulence on the discontinuities. This noise can be bothersome to customers, especially during high fan speed operation, or when the fan is first turning on. (Specification, page 1, lines 16-28.)

To overcome these disadvantages, a set of radial vanes can be used in the climate control system ducts upstream of the bends or discontinuities.

For example, claim 14 specifies:

A method of operating a climate control system in a passenger vehicle traveling on the road, the method comprising:

directing a flow of air (FIG. 1, "FLOW", specification, page 4, lines 25-27, page 14, lines 5-6) to a passenger compartment of the vehicle (FIG. 1, element 19, specification, page 4, line 27 to page 5, line 2) via a duct (FIG. 1, element 27, specification, page 4, lines 18-23), where the duct has a bend (FIG. 1, element 32, specification, lines 23-24) and where a blower fan (FIG. 1, 24, specification, page 4, lines 24-25) is coupled to said duct upstream of said bend and where a set of radial vanes (FIG. 1, element 30, specification, page 4, lines 18-19) is located in said duct; and

operating the blower fan to generate said flow of air in said duct (specification, page 4, lines 8-12, page 2, lines 12-17, and page 15, lines 27-28), where said radial vanes protrude inwardly into said flow of air in said duct (one or more of FIGS. 1-16, and page 15, lines 15-16), and said vanes are located downstream of said fan and upstream of said bend (FIG. 1, specification page 4), said vanes reducing noise otherwise caused by air flowing around said bend (specification, page 15, lines 29-31).

In this way, it is possible to reduce the turbulence of the flow around the bends or discontinuities, thereby reducing the noise. (Specification, page 2, lines 3-7.)

An advantage of the radial vanes is that they can be, in one example, integrally molded into the plastic ducts of the climate control system, thereby allowing ease in manufacturing with low cost. (Specification, page 2, lines 8-11.)

Another advantage is that the system can reduce impingement or flow noise generated by flow turbulence contacting a discontinuity in the duct system. Thus, it can reduce turbulence upstream of a discontinuity or bend in ducts to reduce impingement or flow noise generated turbulent flow, generated from the fan, contacting the discontinuity in system. (Specification, page 2, lines 12-17.)